WestPoint Home, Inc.
York County
Biddeford, Maine
A-79-71-N-R (SM)

Departmental
Findings of Fact and Order
Air Emission License

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., § 344 and § 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

WestPoint Home, Inc. (WPH) located in Biddeford, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their textile manufacturing facility.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (scf/hr)	Fuel Type	Stack #
Boiler #1	110	1,100,000	Natural Gas	1
Drying Range #1	8.8	8,544	Natural Gas	3
Drying Range #2	11.6	11,262	Natural Gas	4
Drying Range #3	6.0	5,825	Natural Gas	5
Drying Range #4	8.8	8,544	Natural Gas	8
Air Makeup R1	4.2	4,078	Natural Gas	N/A
Air Makeup R2	4.2	4,078	Natural Gas	N/A
Air Makeup R3	4.2	4,078	Natural Gas	N/A
Air Makeup R4	4.2	4,078	Natural Gas	N/A
Dryer #1	2.9	2,816	Natural Gas	N/A
Dryer #2	2.9	2,816	Natural Gas	N/A
Dryer #3	2.9	2,816	Natural Gas	N/A
Dryer #4	2.9	2,816	Natural Gas	N/A

Process Equipment

Equipment/Process	Pollutant	Pollution Control Equipment
Flock Processing	PM	Baghouse
Flocking/ Drying Ranges	PM	Fume Eliminator
Dying/Dryers	PM	Filter Screen
Chemical Usage	VOC/HAP	none

C. Application Classification

The application for WPH does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005). With the facility wide natural gas fuel limit and the annual VOC/HAP emission limit, the facility is licensed below the major source thresholds and is considered a synthetic minor.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Process Equipment

WPH manufactures a non-woven fabric called Vellux®. The individual processes for manufacturing Vellux® include flock processing, flame lamination, adhesive application, flock application, oven drying/curing, dyeing, and finishing.

Flock Processing

Nylon tow is purchased in strand form which has been cleaned, wetted, and packed in cartons. Several cartons are grouped together, and the tow is fed into a guillotine style flock-cutting machine where it is compressed for cutting to the desired length. The sheared flock falls by gravity into drums and is transferred to a finish tank. Batches of flock are continuously stirred in the finish tank while being heated with steam and water containing an antistatic agent and a wetting agent.

When the batch reaches the desired temperature, it is fed by gravity into a centrifuge. The centrifuge reduces moisture in the flock to about 20%, and the flock is then conveyed by blower to a drying system consisting of a series of blowers, cyclones, hoppers, steam convection heaters and related piping. The drying system reduces the moisture content of the flock to 3-4%, and it is collected in the hoppers and bagged. A pulse-jet baghouse captures the fines from the tops of the cyclones.

Flame Lamination

A flame laminator is used to construct a substrate which serves as the base or core of the blanket. The substrate consists of two layers of polyurethane foam with a layer of polyester scrim sandwiched in the middle. A natural gas flame melts the layers of foam and scrim enough to bond them together. The bonded substrate is trimmed to the desired width and calendered onto a roll.

The heat input of the natural gas for each flame laminator is determined to be less than 0.5 MMBtu/hr. Therefore this equipment is exempt from licensing consideration as fuel burning equipment per 06-096 CMR 115, Appendix B, Section B.2.

A previous analysis of the potential VOC emissions from the flame laminators determined that emissions would be small enough to be considered insignificant. A pulse-jet baghouse controls PM emissions from the flame laminators. Approximately 10 lbs of residue is collected by the baghouse each 8-hour shift.

Flocking Range

The flocking ranges consist of three areas; adhesive application, flock application, and drying/curing. Adhesive is applied to the substrate by a print roll machine. Pre-mixed adhesive, pigments, and additives are pumped to this machine from batch tanks.

The substrate, with adhesive applied to only one side, enters a flocking module and travels under a screen through which the flock falls continuously. An electrically charged field causes the falling flock to become oriented

perpendicular to the adhesive-laden substrate, and the flock becomes embedded in the adhesive by gravity and subsequent vibration. Excess flock is removed by vacuum before the substrate enters three additional flocking modules where the process is repeated.

Once flocking is complete, the substrate, with flock embedded in adhesive on one side, passes through a natural gas fired oven and dryer to dry and cure the adhesive. The flock substrate is brushed and vacuumed to remove loose flock and contaminants and is then returned to the entry end of the flocking range for processing of the second side.

Emissions from the drying ranges are controlled with fume eliminators consisting of a recirculating wet scrubber/spray condenser followed by packed fiberglass filters. The fume eliminators condense and remove semi-volatiles and PM.

Dying/Finishing

Vellux® material which has been flocked, dried, and cured and which will become one of the deeper colors, is cut to blanket length and placed in the dyeing machines in preparation for piece dyeing. Water solutions of dye and additives are prepared for addition to the dyeing machines from side tanks. The dye machine is filled with water and heated before addition of the dye solution. The Vellux® material is heated further in the dye liquor to fix the dye. After rinsing, the Vellux® material is transferred to dryers and dried before being transported to the sewing department for finishing, labeling, and packaging.

The control device for the dryers in this operation is an 80-mesh lint screen placed in the dryer exhaust. As the drying cycle progresses, lint collects on the screen increasing the efficiency of the filter. The lint screen is automatically cleaned after each cycle.

C. Boiler #1

Boiler #1 is used for process steam and facility heating needs.

Boiler #1 was installed in 1937 and originally fired coal. It was converted to natural gas in 1991. New Source Performance Standards (NSPS) Subpart Db applies to steam generating units for steam generating units greater than 100 MMBtu/hr manufactured after June 19, 1984. The conversion to natural gas is not considered a “modification” to Boiler #1 because it resulted in a decrease in emissions. It is also not considered a “reconstruction” because the capital cost of the conversion was less than 50% of the cost of a replacement unit. Therefore, Boiler #1 is not subject to NSPS Subpart Db.

Boiler #1 is equipped with Low NO_x burners.

A summary of the BPT analysis for Boiler #1 is the following:

1. The total fuel use for the facility shall not exceed 428,600,000 scf/year of natural gas based on a 12 month rolling total.
2. *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (last amended November 3, 1990) regulates PM emission limits. However, in this case a BPT analysis determined that an emission limit of 0.05 lb/MMBtu was appropriate and shall be used. The PM_{10} limits are derived from the PM limits.
3. SO_2, NO_x, CO, and VOC emission limits are based on AP-42 data dated 7/98.
4. Visible emissions from Boiler #1 shall not exceed 10% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period.

D. Drying Ranges, Air Makeup Units, and Dryers

Drying Ranges #1 - #4 were manufactured in 1967, 1970, 1981 and 1997, respectively, firing natural gas with a capacity of 8.8, 11.6, 6.0 and 8.8 MMBtu/hr. Emissions from the Drying Ranges are controlled with fume eliminators that consist of a recirculating wet scrubber/spray condenser followed by a fabric filter. The fume eliminators condense and remove semi-volatiles, PM and PM_{10} in the exhaust.

Each drying range has an associated makeup air heating unit designated R1 – R4. Makeup Air Units R1 – R3 were constructed in 1996, and R4 was constructed in 1997. Each fires natural gas with a heat input of 4.2 MMBtu/hr. The air makeup units are used for wintertime building heat and to replenish air removed from the buildings during combustion in the Drying Ranges.

The four cloth dryers designated Dryers #1 - #4 are batch loaded industrial capacity direct-contact clothes dryers, each firing natural gas with a heat input of 2.9 MMBtu/hr. The dryers are used to dry blankets that have just been dyed. Eighty-mesh lint screens control particulate emissions from the dryers. Lint collects on the screen as the drying cycle progresses, forming a highly efficient filter medium.

BPT for the Drying Ranges, Air Makeup Units, and Dryers is the following:

1. The total fuel use for the facility shall not exceed 428,600,000 scf/year of natural gas based on a 12 month rolling total.
2. *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (last amended November 3, 1990) regulates PM emission limits for the Air Makeup Units. However, in this case a BPT analysis determined that an emission limit of 0.05 lb/MMBtu was appropriate and shall be used.
3. The PM_{10} limits are derived from the PM limits.

4. SO_2, NO_x, CO, and VOC emission limits are based on AP-42 data dated 7/98.
5. Visible emissions from the Air Makeup Units shall each not exceed 10% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period.
6. Visible emissions from the Drying Ranges and Dryers shall each not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a 1-hour period.

E. Annual Emissions

WPH shall be restricted to the following annual emissions, based on a 12 month rolling total:

Total Licensed Annual Emissions for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	**PM_{10}**	**SO_2**	**NO_x**	**CO**	**VOC**	**Total HAP**
Combustion	11.0	11.0	0.1	30.0	18.0	1.2	--
Process Emissions	53.6	53.6	--	--	--	38.7	9.9
Total TPY	**64.6**	**64.6**	**0.1**	**30.0**	**18.0**	**39.9**	**9.9**

III. AMBIENT AIR QUALITY ANALYSIS

WPH previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards. An additional ambient air quality analysis is not required for this renewal.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-79-71-N-R subject to the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]

(3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]

(4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [06-096 CMR 115]

(6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]

(7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]

(8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records

for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]

(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]

(10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]

(11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
   1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
   2. pursuant to any other requirement of this license to perform stack testing.

B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to

the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 115]

(13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]

(15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) **Boiler #1**

A. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM	0.05	06-096 CMR 115, BPT

B. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	5.67	5.67	15.40	9.24	0.61

C. Visible emissions from Boiler #1 shall not exceed 10% opacity on a six (6) minute block average, except for no more than one (2) six (6) minute block average in a continuous 3-hour period. [06-096 CMR 101]

(17) **Drying Ranges, Air Makeup Units, and Dryers**

A. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Makeup Air R1	PM	0.05	06-096 CMR 115, BPT
Makeup Air R2	PM	0.05	06-096 CMR 115, BPT
Makeup Air R3	PM	0.05	06-096 CMR 115, BPT
Makeup Air R4	PM	0.05	06-096 CMR 115, BPT

B. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Drying Range #1	0.85	0.72	0.05
Drying Range #2	1.13	0.95	0.06
Drying Range #3	0.58	0.49	0.03
Drying Range #4	0.85	0.72	0.05
Makeup Air R1	0.41	0.34	0.02
Makeup Air R2	0.41	0.34	0.02
Makeup Air R3	0.41	0.34	0.02
Makeup Air R4	0.41	0.34	0.02
Dryer #1	0.28	0.24	0.02
Dryer #2	0.28	0.24	0.02
Dryer #3	0.28	0.24	0.02
Dryer #4	0.28	0.24	0.02

C. Visible emissions from the Air Makeup Units shall each not exceed 10% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period. [06-096 CMR 101]

D. Visible emissions from the Drying Ranges and Dryers shall each not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

(18) **Fuel Limit**

Total fuel use for the facility shall not exceed 428,600,000 scf/yr of natural gas. Records of annual fuel use shall be kept on a 12-month rolling total basis. [06-096 CMR 115, BPT]

(19) **Process Equipment**

A. WPH shall continue to maintain and operate fume eliminators consisting of wet scrubbers followed by filters on Drying Ranges #1 - #4. WPH shall keep descriptive, dated records of maintenance, routine or otherwise, performed on the fume eliminators. [06-096 CMR 115, BPT]

B. WPH shall continue to maintain and operate 80 mesh (or finer) lint screens on Dryers #1 - #4. WPH shall keep descriptive, dated records of maintenance,

routine or otherwise, performed on the mesh lint screens. [06-096 CMR 115, BPT]

C. WPH shall continue to maintain and operate the baghouse to control emissions from the flame laminators. WPH shall keep descriptive, dated records of maintenance, routine or otherwise, performed on the flame laminator baghouse. [06-096 CMR 115, BPT]

(20) **Facility Wide Limits**

A. Facility wide emissions of VOC shall not exceed 39.9 ton/year on a 12-month rolling total basis. [06-096 CMR 115, BPT]

B. Facility wide emissions of HAP (total combined) shall not exceed 9.9 ton/year on a 12-month rolling total basis. [06-096 CMR 115, BPT]

C. Facility wide emissions of PM and PM_{10} shall each not exceed 64.6 ton/year on a 12-month rolling total basis. [06-096 CMR 115, BPT]

D. WPH shall keep records of the amount of VOC and/or HAP containing material used, the percent VOC and/or HAP in the material (from MSDS sheets or other approved method), and the amount of VOC and HAP emitted. [06-096 CMR 115, BPT]

E. WPH shall keep records of the amount of the amount of material processed and calculate PM/PM_{10} emissions monthly. Records of actual PM/PM_{10} emissions shall be kept on a 12-month rolling total basis. [06-096 CMR 115, BPT]

(21) **General Process Sources**

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

(22) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 CMR 137 (last amended July 6, 2004), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

1) A computer program and accompanying instructions supplied by the Department;

or

2) A written emission statement containing the information required in 06-096 CMR 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Phone: (207) 287-2437

The emission statement must be submitted by July 1 or as otherwise specified in 06-096 CMR 137.

(23) **Air Toxics Emission Statement**

If WPH exceeds the thresholds for HAPs listed in Appendix A of 06-096 CMR 137 in an inventory year, in accordance with 06-096 CMR 137 the licensee shall report, no later than July 1 every three years (2005, 2008, 2011, etc.) or as otherwise stated in 06-096 CMR 137, the information necessary to accurately update the State's toxic air pollutants emission inventory in a format prescribed by the Department containing the information required in 06-096 CMR 137.

Reports and questions should be directed to:

Attn: HAP Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Phone: (207) 287-2437 [06-096 CMR 137]

(24) WPH shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2008.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
DAVID P. LITTELL, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 11/2/07
Date of application acceptance: 11/13/07

Date filed with the Board of Environmental Protection: _____

This Order prepared by Lynn Ross, Bureau of Air Quality.